REMARKS

On May 22, 2006, the applicant's representative Mandy Jubang of Fish & Richardson P.C. conducted a telephone interview with Examiners Nghi V. Tran and Khanh Dinh, in which claim 1 was discussed with reference to Hasegawa et al. (U.S. 5,878,029). Specifically, Examiner Tran clarified the manner in which he corresponds certain elements of claim 1 with the features of FIG. 24 of Hasagewa. The applicant's representative thanks both Examiners Tran and Dinh for the courtesies extended during the interview.

Claims 1-13 and 15 are pending in this application, of which claim 1, 9, 11, and 15 are independent. Further examination is respectfully requested in light of the following remarks.

Claims 1, 3, 5-9, 11, 12, and 15 were rejected under 35 U.S.C. § 102(e) as being anticipated by Hasegawa. In rejecting claim 1, the examiner stated:

> **4. With respect to claims 1, 9, 11, and 15, Hasegawa teaches a communication system for implementing an overall communication policy [fig.9] comprising:**
>
> **• a first interface for accepting a first plurality of separate communication links forming a first trunked communication link [item 60 of fig.24 i.e. route a = 10M];**
>
> **• a second communication interface for accepting a second plurality of separate communication links forming a second trunked communication link [item 61 of fig.24 i.e. route b = 10M]; and**
>
> **• a plurality of processors [42-43 i.e. switches], each coupled to a corresponding different one of the first plurality of separate communication links and coupled to a corresponding different one of the second plurality of communication links, and coupled to one another over a communication channel [figs.24-26];**
>
> **• wherein each processor in plurality of processor is configured to implement a separate communication policy for data passing between the first trunked communication link and a corresponding one of the second plurality of communication links such that together the separate communication policies (i.e. each of requested bandwidth as route a or b) approximate the overall communication policy (i.e. usable bandwidth) [col. 18, In. 13 - col. 19, In.62], and wherein the plurality of processors are further configured to communicate**
>
> **among one another to adjust the separate communication policies to adapt to data flows passing through the processors [col.4, Ins.27-46 and fig.25 i.e. allow bandwidth increase].**

Hasegawa discloses techniques for shortening the time it takes for a source-side subscriber switch of a variable bandwidth network to change the bandwidth allocated for use by a route in response to a bandwidth change request received from a terminal. (*see* Abstract; col. 4, lines 28-46). In Hasegawa, each switch (subscriber and transit) collects, in advance, information related to the residual bandwidth of each route passing through the switch, where the residual bandwidth of each route is the calculated difference between the capacity of a physical

transmission path connecting the switch with an adjacent switch and the amount of bandwidth that has been allocated for use by the routes passing through the switch. (col. 3, lines 25-37; col. 4, lines 27-30). Each switch on a route notifies the source-side subscriber switch of the residual bandwidth for each route at that switch. On the basis of the residual bandwidth notified from each switch for a particular route, the source-side subscriber switch evaluates the amount by which the bandwidth can subsequently be increased in that route, and allows/rejects bandwidth change requests accordingly. (col. 6, lines 13-18; col. 14, lines 31-38).

For ease of reference, the applicant has reproduced a marked up copy of FIG. 24 of Hasagawa.

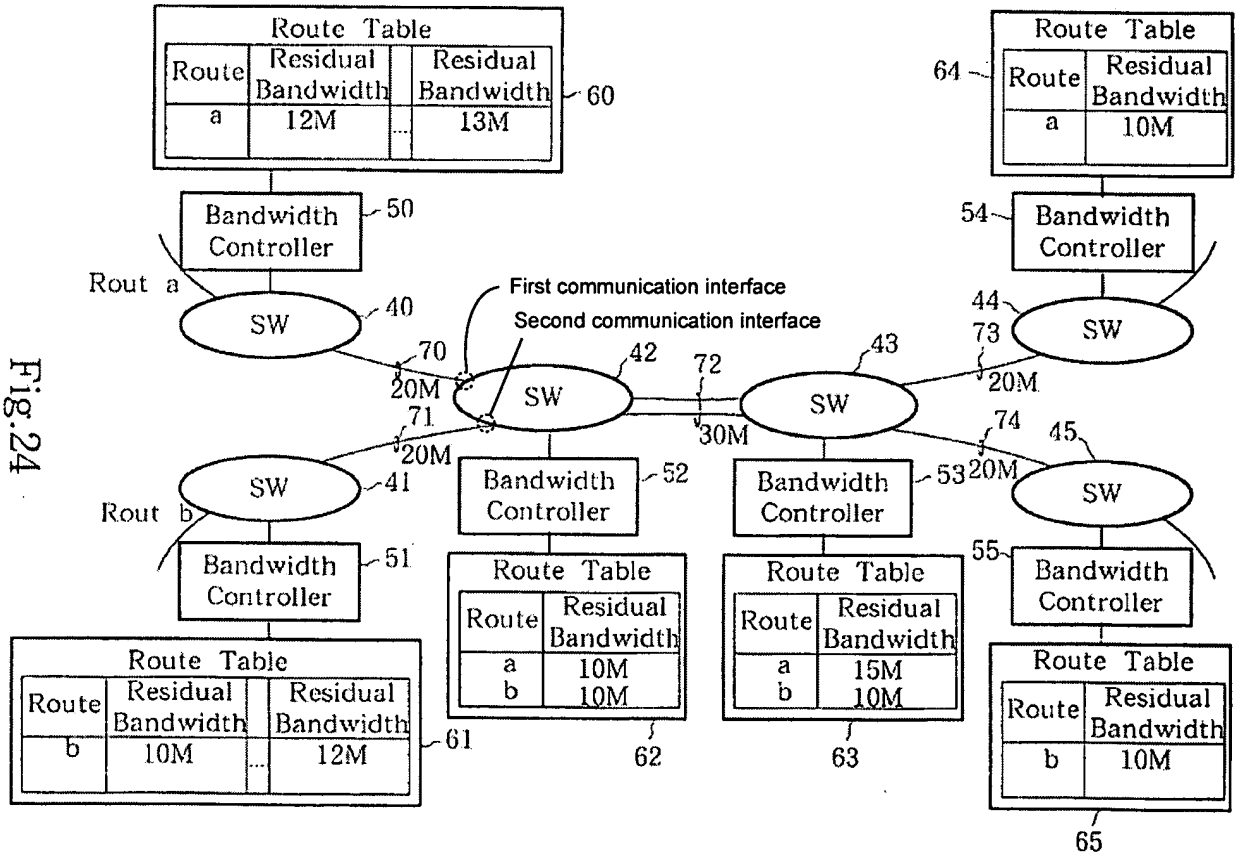

Fig.24

Based on the action of April 10, 2006 and the telephone interview of May 22, 2006, the applicant believes that the examiner has made the correspondences between elements of claim 1 and elements of FIG. 24 of Hasagawa as set forth in the table on the following page:

Elements of claim 1	Elements of FIG. 24 of Hasagawa
First communication interface	Interface between switch 42 and link 70
Second communication interface	Interface between switch 42 and link 71
First trunked communication link	Route a
Second trunked communication link	Route b
Plurality of processors	Switches 42, 43
First plurality of separate communication links	Switch 40
Second plurality of separate communication links	Switch 41
Communication channel	Link 72
Separate communication policies	Requested bandwidth for each of route a and route b
Overall communication policy	Usable bandwidth of physical transmission path

Based on these assumptions, claim 1 (with the appropriate substitutions in italic-face type) would read as follows:

> **A communication system for implementing an overall communication policy comprising:**
> ***an interface between switch 42 and link 70* for accepting a *switch 40* forming *route a*;**
> ***an interface between switch 42 and link 71* for accepting a *switch 41* forming *route b*; and**
> ***switches 42, 43*, each coupled to a corresponding different one of the *switch 40* and coupled to a corresponding different one of the *switch 41*, and coupled to one another over *link 72* ...**

Firstly, the examiner takes an untenable position in an attempt to link Hasagawa to claim 1, implying that the "switch 40" in Hasagawa corresponds to the "first plurality of separate communication links" in claim 1, and the "switch 41" in Hasagawa corresponds to the "second plurality of separate communication links" in claim 1. This construction of the term "plurality of separate communication links" is not supported by its ordinary meaning or the way the term is used in the specification.[1]

The applicant's specification used the term "communication links" consistently with its ordinary meaning: "in communications, a link is a line or channel over which data is

[1] Absent a special and particular definition created by the patent application, terms in a claim are to be given their ordinary and accustomed meaning. *Renishaw PLC v. Marposs Societa Per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998).

transmitted." (Webopedia, http://www.webopedia.com/TERM/l/link.html, last visited on 6/5/2006)

Moreover, Hasagawa does not use the term "switch" in any special way that would cause a person of ordinary skill in the art to equate it with a "plurality of separate communication link." Col. 3, lines 22-36 of Hasagawa makes clear that the network has links and that a switch is not a link:

> This variable-bandwidth network has a plurality of switches 40-45 and constitutes an ATM network. It is assumed here that switches 40 and 41 are subscriber switches, each connecting subscribers to the network, and that route a is set from switch 40 via switches 42, 43 and 44, and that route b is set from switch 41 via switches 42, 43 and 45. It is further assumed that each of links 70, 71, 73 and 74 between switches 40 and 42, 41 and 42, 43 and 44, and 43 and 45 has a capacity of 20 Mb/s, while link 72 between switches 42 and 43 has a capacity of 30 Mb/s. It is further assumed that routes a and b are each using 10 Mb/s of bandwidth. Links 70-74 therefore respectively use 10, 10, 20, 10 and 10 Mb/s of their bandwidth, which means that 10 Mb/s of residual bandwidth is left for both route a and route b.

The applicant respectfully submits that the examiner has attributed to "plurality of separate communication links" a meaning that conflicts with common English and the text of Hasagawa by contending that a "switch" is a "plurality of separate communication links".

Furthermore, claim 1 requires "a first plurality of separate communication links forming a first trunked communication link." If, as the examiner contends, the "first trunked communication link" of claim 1 corresponds to "route a" of FIG. 24, it is not clear to the applicant how the examiner finds in Hasagawa a "switch" forming a "route." The above quoted text of Hasagawa and col. 1, lines 18-20 makes clear that a "route" signifies a transmission path that is set between one subscriber switch and another switch via a plurality of virtual transmission paths, where each virtual transmission path is set in a physical transmission path between adjacent switches.

Even if "switch" could somehow be construed to encompass a "plurality of separate communication links," and "route" could somehow be construed to encompass a "trunked communication link," a consistent application of such elements of Hasagawa to claim 1 renders the following limitation of claim 1 completely incomprehensible:

wherein each *switch 42, 43* in the plurality of *switches 42, 43* is configured to implement a separate *requested bandwidth for each of route a and route b* for data passing between one of *switch 40* forming *route a* and a corresponding one of *switch 41* forming *route b*, such that together the separate *requested bandwidth for each of route a and route b* approximate the *usable bandwidth*...

As the applicant submitted in the previously-filed response of March 2, 2006, the examiner's position that the bandwidth allocated by a particular switch for use by a particular route that passes through the switch corresponds to the "separate communication policy" of claim 1, and the aggregate of the bandwidth allocated to all of the routes that pass through the switch approximates the "overall communication policy" is inconsistent with the teachings of Hasegawa. There is no notion of an "overall communication policy" in Hasegawa, much less an *approximation* of some overall communication policy in Hasegawa. In Hasegawa, the capacity of the physical transmission path (which the examiner asserts is the "overall communication policy") serves merely as a *constraint* on the amount by which the bandwidth of any given route can be increased while ensuring that the aggregate of the bandwidth allocated to all of the routes that pass through the switch does not exceed the usable bandwidth. There is no disclosure or suggestion in Hasegawa of "separate communication policies" that together "approximate the overall communication policy" as recited in claim 1.

Furthermore, there is no disclosure whatsoever in Hasagawa of data passing between "switch 40 forming route a" and "switch 41 forming route b." If anything, Hasagawa explicitly teaches away from this feature of claim 1 at col. 3, lines 22-36 of Hasagawa, which states in relevant part: "route a is set from switch 40 via switches 42, 43 and 44, and that route b is set from switch 41 via switches 42, 43 and 45." That is, any data associated with route a passes from switch 40 to switch 44 via switches 42 and 43. Data associated with route a does not ever pass through switch 41. Likewise, any data associated with route b passes from switch 41 to switch 45 via switches 42 and 43. Data associated with route b does not ever pass through switch 40.

Claim 1 also recites that "the plurality of processors are further configured to communicate among one another to adjust the separate communication policies to adapt to data

flows passing through the processors." As the applicant submitted in the previously-filed response, the examiner's position that the switches communicate among one another to adjust the amount of bandwidth each switch allocates to respective routes to adapt to the data flows passing through the switch is inconsistent with the teachings of Hasegawa. In Hasegawa, each switch communicates to the source-side subscriber switch the amount of *residual* bandwidth that is available at that switch for a particular route (e.g., route A) based on the amount of bandwidth that is being consumed by all of the routes that pass through that switch. In some instances, a switch may inform the source-side subscriber switch that no *residual* bandwidth is available for route A, in which case the source-side subscriber switch would reject a bandwidth change request for route A regardless of whether other switches through which route A would pass has available residual bandwidth. If the source-side subscriber switch allows a bandwidth change request (e.g., a request for a particular amount of bandwidth to be allocated to route A), the terminal from which route A originates (i.e., the terminal from which the source-side subscriber switch received the bandwidth change request) outputs route A at the increased bandwidth. The switches through which route A do not communicate with one another to adjust the amount of bandwidth that is allocated to route A. Rather, the switches merely respond to the increased bandwidth used by route A to recalculate the residual bandwidth available at that switch for route A. There is no disclosure or suggestion in Hasegawa of "the plurality of processors ... configured to communicate among one another to adjust the separate communication policies to adapt to data flows passing through the processors," as recited in claim 1.

For at least these reasons, claim 1 and its dependents patentable over Hasegawa.

The applicant requests a supplementary action and a restarting of the reply period as set forth in MPEP 710.06 because the action mailed April 10, 2006 does not adequately explicitly explain the references and/or fully give reasons for the rejections and/or take not of the applicant's arguments and answer the substance of them. The applicant respectfully requests that the supplementary action **address the substance of the arguments** submitted in the previously-filed response of March 2, 2006 and this response.

With regards to claim 9, the applicant reiterates the position set forth in the previously-filed response of March 2, 2006. The applicant respectfully submits that Hasagawa fails to contemplate any of its switches being used in a redundant manner in anticipation of a failure of

one of the switches, and never uses the word "standby" with respect to the switches. The examiner appears to suggest in his comments related to claim 5 that the presence of the terms "route a = 15M" and "route b = 10M" in both route tables 62 and 63 indicate that route table 62 mirrors the information of route table 63 and vice versa. The applicant again submits that such interpretation of the information provided in route tables 62 and 63 is incorrect. Rather, the switch 42 includes a bandwidth controller 52 that calculates the residual bandwidth associated with routes A and B as it relates to the switch 42, and the switch 43 has its own bandwidth controller 53 that calculates, independent of the bandwidth controller 52, the residual bandwidth associated with routes A and B as it relates to the switch 43. In this instance, it is mere coincidence that the information provided in route table 62 and route table 63 is identical as it relates to route a and route b. There is no notion anywhere in Hasegawa of one switch mirroring information of another switch. Accordingly, it is no surprise that Hasegawa does not disclose or suggest "a second processor ... in communication with the first processor to maintain a mirror configuration on the second processor to implement the communication policy in a standby status relative to the first processor, wherein the first processor implements the communication policy until the second processor detects a failure in the first processor, at which time the second processor implements the communication policy," as recited in claim 9.

For at least these reasons, claim 9 and its dependents patentable over Hasegawa.

Claim 11 recites a number of features that are separate and distinct from the features of claim 1. The applicant respectfully requests that the examiner more clearly specify which elements of Hasagawa the examiner associates with each of the following features of claim 11: (1) a first plurality of aggregator/disaggregator network devices arranged between the plurality of processors and the first communication link; (2) a second plurality of aggregator/disaggregator network devices arranged between the plurality of processors and the second communication link; (3) a first mesh, including a plurality of network links such that a link in the plurality of network links exists to join each processor in the plurality of processors to each aggregator/disaggregator in the first plurality of aggregator/disaggregator network devices; and (4) a second mesh, including a plurality of network links such that a link in the plurality of network links exists to join each processor in the plurality of processors to each aggregator/disaggregator in the second plurality of aggregator/disaggregator network devices.

Claim 15 is directed to a system that includes "processors, each configured to implement a separate communication policy for data passing between the first interface and the second interface such that together the separate communication policies approximate an overall communication policy." If, as the examiner appears to suggest, the "first interface" corresponds to the interface between switch 42 and link 70 of FIG. 24 of Hasagawa, and the "second interface" corresponds to the interface between switch 42 and link 71 of FIG. 24 of Hasagawa, the examiner still has not identified where Hasagawa discloses data passing between the "interface between switch 42 and link 70" and the "interface between switch 42 and link 71," much less where Hasagawa discloses separate communication policies that together approximate an overall communication policy.

All of the dependent claims are allowable for at least the same reasons as the independent claims from which they depend.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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